I PROJECT TITLE

Fire Marshal Information Management System (FMIMS)

II PROJECT LEADER

Mark F. Gates
Deputy Assistant Secretary
Office of State Fire Marshal
5150 Florida Blvd.
Baton Rouge, Louisiana 70806
(800) 256-5452
(225) 925-3623
(225) 925-4241 (Fax)
mgates@dps.state.la.us

III EXECUTIVE SUMMARY

The Office of State Fire Marshal is submitting this request for a project to provide the ability for the Louisiana Architectural, Engineering, and Construction community ("AEC") as well as the general public to submit and review plans through a web based portal; to provide the SFM the ability to perform construction inspections while in possession of the most current information on that specific project; the capability to provide the citizens and businesses of the State of Louisiana electronic communication with the State Fire Marshal's Office via the web; the means of producing quicker and more cost effective correspondence with the AEC and Louisiana citizens; and the implementation of a program that can potentially be interconnected with other state agencies and local municipalities around the country.

The fund requested is $1,000,000.00 for an estimated project cost of $1,880,000.00. The balance of the cost will be from other funding sources. The estimated operational date is six months to one year for full operations. Partial operation status will be achieved within six months.

IV DESCRIPTION OF THE PROJECT

A. Project Narrative

The implementation of the FMIMS program within the State Fire Marshal's Office will facilitate the processes of the office for its' employees, and at the same time create valuable services to the public that will save time and money. FMIMS will provide the AEC the ability to submit construction documents consisting of plans and specifications, addendum, change orders, correspondence, request for appeals and other construction related data electronically. FMIMS will also provide the AEC the ability to access the status, related information, and to view the progress of his plans. This program will eliminate delays in the implementation of construction projects, the negative costs associated with those delays, a reduction in the cost of postage for this office as well as the AEC and the general public. FMIMS provides this office with the ability to track all documents, files, and work generated by the office as well as those documents, correspondence drawings submitted by the AEC and the general public. FMIMS also will allow this office to retain all information in one concise database and retain records, specifically construction documents, for an indefinite period of time. FMIMS will allow each section of this office to access all necessary and related information from all other sections.

The FMIMS program will eliminate many frustrations and obstacles that currently prohibit this office from producing work in a timely and efficient matter. Currently, the office does not have the ability to accept plans electronically. Also, the office lacks a valid tracking system for work produced by the office and its district offices. Inspectors in the field statewide currently have no way of accessing the valuable information generated by the currently various and separate sections of the office that would enable them to better perform their jobs. Currently, work in the office is performed on a myriad of different programs. Each program is specific to that section and only that section has access to the data generated by that section. There is a definite need to bring the entire department together and have all information available to those that need it to work more efficiently. FMIMS, joining all sections of the Fire Marshal's office, into one program with access to all related data would eliminate this separation and link much missing information. The main objective of this department is public safety. The FMIMS program would be an invaluable asset to this department in allowing us to work more efficiently and provide better services to the public.

Currently, the State Fire Marshal's office uses various computer programs that are not linked. One section may use three different programs to perform its basic functions. The primary tasks of this office include a review for code compliance of all of construction projects (other than one-and two-family residences) in the state of Louisiana and the inspection of all new and existing public buildings in accordance with the Life Safety Code. The program being used for these separate but related functions utilizes functions and coding that is six years old – and mostly obsolete. The current program does not currently provide the functionality required by these sections.

The current program not only slows production, but causes more problems than it solves since most of it has yet to be written. This program is also run from the Data Center and downtime on the server is a continuing and significant problem for this office. When the system goes down, work is completely stopped. Since FMIMS would provide the required functionality for all sections of this office, the many different programs could be done away with. Also, Plan Review submittals could be disseminated in a much more timely manner, inspections could be completed more efficiently, record-keeping and the ability to locate these records if needed would be maximized, and the problem of server downtime would be eliminated.

The Fire Marshal's office consists of a Main Office in Baton Rouge as well as district offices in Baton Rouge, Lafayette, New Orleans, and Shreveport and a satellite office in Monroe. The Fire Marshals' office currently employs 177 persons statewide.

The users served by this program includes all employees' and sections of the SFM, all employees in the District offices, and the AEC and the citizens of Louisiana. Potentially, this program can be interconnected to similar programs used by other state agencies as well as local municipalities allowing for shared information on construction projects.

The technologies being employed are collaborative project commerce (CPC) and technical data management (TDM) solutions within a Windows-based vehicle.

The users will implement the above technologies to:

- Automate the capture, storage, and flow of structure, vendor, licensee, and investigative information, throughout the organization.
- Provide enterprise wide visibility of SFM controlled information.
- Establish a location for housing existing legacy data.
- Minimize the associated time to process required inspections, investigations, surveys and licensing.
- Improve management of field inspector assignments.

- Automate retrieval of documents and structure information using simple, yet robust queries.
- Provide associated documentation linked to structures for inspector use in the field.
- Establish document vaults to securely store customer and engineering drawings.
- Increase reengineering capabilities.
- Be able to integrate data between the FMIMS (Fire Marshal Information Management System) and other business systems as the requirement is realized.
- Reduce inspection turn around time and improve the efficiency of the field inspectors by providing all relevant information to the field.
- Improve communications between the Fire Marshal's Office and their clients.

B. Use of Innovative Technology

FMIMS will utilize a function similar to SmarGateway that will give the SFM the opportunity to optimize its business procedures by linking the FMIMS to other data systems. The program will enable this office to connect to and accurately exchange data between these systems and other users. The implications of this are far-reaching. A significant number of inspections in this state are done by the local fire prevention bureaus across the state which work on behalf of the SFM. Currently, there is no way for these bureaus and the SFM to exchange data except by regular mail which is time consuming and expensive. FMIMS will provide the opportunity for these agencies to link and share data instantaneously with the SFM.

FMIMS web-based solutions will enable the SFM to conveniently and economically take full advantage of CPC e-business developments. FMIMS suite of web based collaborative solutions will enable the SFM to provide up to date and precise knowledge sharing, which dramatically reduces processing cycle times and response to the citizenry of the State of Louisiana. FMIMS CPC solutions will bring the statewide network of the SFM inspectors, customers, subject matter experts and subcontractor systems, into one community.

One of the most exciting aspects of the FMIMS program is that, once tailored for a state department such as the SFM, it is possible that this technology will become valuable to other state agencies around the country that perform similar functions. The Louisiana State Fire Marshal's Office would be the spearhead of a program that could help many agencies work more efficiently, more cost effectively, and greatly enhance production from its current status. The FMIMS program will be able to provide the citizens and businesses of the State of Louisiana with a system of communication that can rapidly respond to Legislative, Life Safety Code and general business practice changes that ensures continued superior service.

Based on information received from other states and municipalities, this program is unique in that no other agency has implemented this type of innovative program.

C. Multi-agency Application or Portability to Other Agencies

The project can be ported to other agencies with the use of web-centric and Windows CPC solutions. Being web-based, the data is accessible to all and FMIMS usage of an Enterprise Application Interface will allow FMIMS to connect to and accurately exchange data between other systems and FMIMS.

Another favorable component of the FMIMS program is the possibility for other state agencies to utilize the program for their own means. Other state fire marshal offices around the country would benefit from the specific program structure that is detailed to work with this department. Also, state agencies and municipalities that deal with plan submittals would benefit from the usage of the electronic submittals, red-lining, tracking of all changes made to plans, and the ability for the public to submit and view the progress of their plans.

B. Benchmarking Partners and/or Best Practice References (if applicable)

FMIMS has not been implemented in any other jurisdiction. FMIMS is the result of an investigation of the need to provide better and faster service to the design community, building owners and the citizens of the state of Louisiana. The program is a unique adaptation of software to enhance the performance of a regulatory agency such as the State Fire Marshal.

C. Long-range Planning

The SFM is striving to employ the technology of e-business because of the anticipated cost and time saving advantages for the office and the citizens of this State. The FMIMS program would allow the SFM to move into the world of e-commerce and e-business.

It is a desire of the SFM Office to have one program instead of a large number of unconnected programs. The ability to have one cohesive program that functions for all sections, and allows all sections to view all data contained within the Fire Marshal's office is the main technical goal of this agency.

The SFM's long range plans include an increase in quality of service and decrease in delivery time of the services provided by this office consistent with our strategic planning for the next five years.

F. Performance Goal

Utilizing FMIMS, the SFM will at a minimum, decrease the review of all commercial construction documents and increase both the number and quality of inspections performed for those commercial projects. FMIMS will also allow for more accurate record keeping of plans reviewed and inspections performed for statistical purposes.

FMIMS will allow for a more interactive communication between this office and the AEC and the general public.

The overall goal is to minimize the delays in new construction caused by the inaccurate or incomplete information available to the personnel of this office , the AEC and the general public.

By minimizing delays caused by inaccurate or incomplete information, construction projects totaling over $5 billion dollars in the State of Louisiana can proceed in a timely fashion thereby stimulating the state's economic growth.

Specific Performance indicators which will be affected:
1.3, Number of inspection conducted – will increase due to the anticipated decrease in the number of inspections cancelled because plans previously approved by the SFM are not on the construction site as required. Lost or misplaced plans result in an inspection not being performed which delays not only that specific project but also other projects which could have been scheduled for inspection and which have the required plans on site. FMIMS allows the inspector to review previously approved plans on his/her laptop computer without the need for a hard copy. Actual values while difficult to estimate should remain consistent with past years and approximate 75,000 – 80,000 inspections per year.
2.2, Number of final inspections performed within two weeks of inspections request. For the reasons stated above, the number of final inspections completed in a timely manner

will also increase. Actual values while difficult to estimate should remain consistent with past years and approximate 11,000-15,000 final inspections per year.
3.2, Number of health care inspections completed. For the reasons stated above, the number of completed health care inspections will also increase. Actual values while difficult to estimate should remain consistent with past years and approximate 6,000 - 6500 inspections per year.

G. Technical Approach

The purpose of this section is to show how the project will be implemented by discussing the following issues:

1. *Technical description*. The three main software programs that will be utilized in the FMIMS program to provide the functionality it needs will be as follows:

   SmartVault
   At the core of Data Management is the SmartVault, a secure location for data, where the data's integrity can be assured and all changes to it are monitored, controlled, and recorded. SmartVault is a component of the server architecture. The vault insures that everyone is using the correct information and provides an audit trail. SmartVault is a service that runs on a Windows NT Server to provide a secure place for document storage and utilizes the built-in security features of Windows NT to insure only authorized users can change important data and that those changes are monitored and recorded. SmartVault enables administrators to organize and control objects, and users to retrieve, store, and protect all their objects necessary for their work. SmartVault automates record keeping and revision control, which makes the tracking and access to information simple and intuitive.

   SmarTeam
   SmarTeam is the client-based application that is loaded on each user workstation. The licenses can be either node-locked or floating. Normally, for each user constantly working on new structures, there should be one designated license of SmarTeam. For each user that is involved in life-cycle functions, there should be a dedicated license of SmarTeam. The dedicated users always need to be able to access their data.

   By organizing, tracking and controlling access to structure information as it is created, SmarTeam facilitates a team-oriented approach to managing data, because it controls information as it is created, reviewed, modified, approved and archived. Because it helps to accelerate the process in which inspections are initiated, executed and processed, SmarTeam can directly help to compress the service time of the Fire Marshal's Office.

   SmartFlow
   As organizations grow in size and scope, they face a serious challenge of managing and tracking their business processes. The need to maintain and control typical business workflows is growing rapidly. Typical processes found at the State Fire Marshal's Office that require organized workflows are cyclical Inspection processes, Construction Plan Reviews, Health Care surveys. SmartFlow gives the user the power to streamline business processes by linking people, information, and applications together.

   SmartFlow Client is the client-based application that is loaded on each user workstation. For each user that is involved in life-cycle functions, there should be a dedicated license of SmartFlow. The dedicated users will always need to be able to participate in workflow processes.

   The SmartFlow Server frees up client resources by running the various processes that the user can select. It enables multiple database connections, providing a more efficient process to concurrent use throughout the workgroup.

Futhermore, multiple servers can be activated to provide a fully scalable solution.

The SmartFlow Workflow Manager includes features that let managers make strategic decisions based on a global perspective of their company's work processes, both at a given moment and over time. The supervisor of a process or a more senior manager is constantly aware of the flow of documents in a workflow via the SmartFlow Workflow Manager. Managers can view which tasks are past due, review workflow status, and even make routing changes on-the-fly and resolve bottlenecks. In addition, the Workflow Manager provides statistical reporting, showing the average time for all processes and allows advanced searches using any process attributes. SmartFlow Workflow Manager enables supervisors to track the location of documents in a workflow process at all times, enabling them to resolve bottlenecks, improve departmental efficiency and make routing decisions on-the-fly. SmartFlow and its Workflow Manager module provide a wide array of essential information to different users within an enterprise, so managers can intelligently track and model their company's business processes and procedures. Managers are able to make strategic decisions based on the knowledge they gain from the SmartFlow Workflow Manager.

2. *Interoperability*. BizTalk – SmarTeam Gateway 2.0 based on BizTalk framework. It enables SmartGateway 2.0 to:

- •Integrates Applications
- •Integrates Business Partners over the web using XML
- •Orchestrates Business ProcessesStandard databases – SmarTeam can run on different database like Oracle and MSSQL and more.

Multi CAD support – SmarTeam can integrate out of the box to several CAD applications like SolidWork, Mechanical Desktop, AutoCAD and many more. SmarTeam's multi-CAD strategy creates synergy between people,information, applications and business processes. Using COM and DCOM technology, SmarTeam is tightly integrated with the most popular Windows CAD, such as CATIA? V5, SolidWorks?? AutoCAD?Mechanical Desktop?, Autodesk Inventor??, Solid Edge??,MicroStationand more. Microsoft Office applications: SmarTeam has out of the box integrations with Microsoft Excel and Microsoft Word. By using open architecture and standard COM API and XML SmarTeam can integrate to other systems and application.

3. *Scalability*. One of the most outstanding functions of the FMIMS program, is the ability for the public to submit building plans electronically, track the progress of those plans while they are being reviewed, and to electronically receive the reviewed plans. This procedure will be beneficial in saving the public time – plans will be received and sent back much faster than we can currently provide; money – electronic submittals will eliminate the need for postage, paper, and envelopes, and aggravation – at any time, a person will be able to sign on to SmarTeam and track the progress of their plans. This function will also benefit the department and will also save time – the ability to do all mark-ups and reviews of plans online will expedite the process immensely; money – the State will also save money on postage, paper, and envelopes, and aggravation – the elimination of paper, an easy to track and easy to view online system for plans would be essential to a smoother running office.

The ability to view and red-line plans online will be extremely beneficial to our Inspections section. Through the implementation of SmarTeam's iXF Briefcasing technology, all captured information in the FMIMS system will become available to the field in a stand-alone, disconnected mode. Edits, redlines and the addition of documents from the field will be available and will enhance the record of information

within the FMIMS system. Currently, Field Inspectors cannot update record information that is delivered from the existing system. Additionally, documents relevant to the inspection site, i.e. Appeal Letters, Exemption Requests, Construction CAD Drawings, Scanned Images, etc are not associated to the Structure or available to the Inspectors in the field. It is easy to see how access to this information while performing an inspection will not only assist the Inspectors', but help the public to receive a much more accurate inspection.

4. Maintaining the System. . Once configured and installed Smarteam requires minimal maintenance.

General IT administration might include:

? Maintaining the Oracle database
? Maintaining the IIS web server.
1. Frequent backup of both the database and vaults servers.
2. Verifying that backups can be safely recovered
3. Installing upgrades and service patches
4. Installing client applications for new users

Smarteam offers yearly subscription to maintenance services that will provide:

?? Automatic upgrades to the most up-to-date versions of SmarTeam
?? Telephone support provided by your local authorized SmarTeam reseller
?? SmarTeam Technical Support via Email and phone calls

SmarTeam enhancement requests, bug report notifications and FAQ's (frequently asked questions)

H. Implementation Approach

Step I – Implementation Preparation - 12 days

1. Assigning the task to FMIMS of establishing the Core Team responsible for participating in the implementation of SmarTeam.
2. Conduct training courses for the FMIMS Core Team on core SmarTeam functionality and administrator type functions (Level I & II Training) 5 Days.
3. Install and configure SmarTeam software, servers and clients.
4. Establish document vaults to securely store the structure data.
5. Establish a Data Model configured of Structures, Folders, Inspection Forms, Reports and profile cards in which information can be easily cataloged and retrieved in the FMIMS.
6. Develop the SmarTeam Data Model needed to support the FMIMS expanding data and processes.
7. Determine security procedures and user authorizations to prevent unauthorized access or modifications in high level.
8. Review configuration and system operations from end user and administrator standpoints for signoff from the FMIMS.

3.2 Step II – Document Management 69 –79 days

1. Review requirements with the FMIMS for Structure, Inspection Forms, Reporting, metadata management in SmarTeam – 5 days
2. Establish profile card configurations for structures, systems, contacts, inspections, drawing integration, along with field mappings for Custom Properties and Title Blocks – 5 days to 10 days
3. Establish profile card configuration for specified super classes of data – 5 days.
4. Review metadata loading requirements and ensure data has been prepared properly 1 day.
5. Perform testing data loading of legacy information into SmarTeam database and vault 2 days.
6. Develop standard operation procedures for entering new data into the system, managing existing data and automating document search and retrieval using simple queries – 3 days.
7. Define end user operations to graphically view and maintain structure information and systems 1 day.
8. Define operations for access to the SmarTeam vault from multiple departments 1 day.
9. Create a User Guide that documents Fire Marshal Office processes - 3 days.
10. Review tailoring requirements for SmarTeam interfaces, database, tools and integrations 3 days.
11. The majority of the requirements presented by FMIMS during the site visits are included as out of the box functionality in SmarTeam. Some additional customization of the system will be required through the usage of SmarTeam COM objects (APIs) based on these requirements 30 days regarding to customized reporting, briefcase, uploading and saving the redlining.
12.

3.3 Step III – Production Pilot

Sec. 1-7 10 days; sec. 8 depend how many users; sec. 8 10-15 days; sec. 9 -10 days

1. Create a test environment for the conference room pilot.
2. Develop test scenarios to identify all structure information to be managed in the SmarTeam environment.
3. Perform complete life cycle operation from project inception to completion based on test scenarios for conference room pilot.
4. Confirm full SmarTeam functionality as required by each of the participating sections.
5. Document any changes in end user operations for managing/retrieving information in SmarTeam based on results from conference room pilot.
6. Address any open issues identified during conference room pilot.

7. Make any adjustments to the final solution prior to Pilot Project.
8. Import all legacy data
9. Conduct end user training for each of the groups participating in the Pilot.
10. Rollout the product to any remaining end users not included in the original software installation.
11. Perform final data load of production data for Pilot.
    Enter Pilot in a production environment involving all departments

I. Assessment of Risks

The risks associated with the FMIMS program appear minimal. FMIMS was developed by securing input from those SFM personnel who will actively utilize the current SMART system. The users of the SMART system have consistently expressed dissatisfaction with the reliability and limitations of SMART. The SMART program currently used by this office has experienced severe downtime and inflexibility in adapting the program for use. In addition, the design community, consisting of architects, engineers, contractors and owners have reviewed the FMIMS program and are in support of its implementation.

The only issue which can be classified as a limitation is that not all persons who submit documents to the SFM can do so electronically. However, the FMIMS program allows for documents to be imaged, acted upon and stored into the FMIMS system.

By reviewing the FMIMS system, much needed flexibility can be achieved allowing this office to add, delete or change the system as programming needs change.

J. Integration with Existing Technologies

Lotus Notes - Lotus Notes integration has been developed for a customer in Europe. This development may be utilized.

Oracle database – FMIMS can run on existing Oracle database. In addition, Oracle is expected to be a strategic product within the State Standard.
FMIMS has open architecture and uses standards formats and tools like XML and Biztalk server which provides the ability to integrate to various of other technologies .

K. Project Budget and Costs

1. *Equipment*.

EQUIPMENT

Network Servers.

a. Database Server: The Database server will store and manage data requests from a client through facilities provided by a Relational Database Management System (RDBMS). Data is stored on the database or servers so that it can be accessed concurrently by many different client applications. The Compaq DL580 server will be configured with a three 36 Gig hard disk drives, 2 Gig RAM, UPS 3000 W, and a redundant power supply. Cost: $50,000.

b. Vault Server**:** Will contain the file server and workflow server. The file server provides file storage and retrieval services for personal and shared files, including security features that control file access rights. The workflow server provides the management of the workflows initiated in FMIMS. The Compaq DL580 server will be configured with three 18 Gig hard disk drives, an additional 1 Gig RAM, Raid & Tape backup 3000 Watt and a redundant power supply. Cost: $220,000

c. Web Server**:** The Compaq DL580 server will be configured with three 18 Gig hard disk drives, 1 Gig RAM, and a redundant power supply. Cost: $30,000

d. Streaming Server: The Compaq DL580 server will be configured with three 18 Gig hard disk drives, 1 Gig RAM, and a redundant power supply. Cost: $25,000

Rack Hardware: The hardware will consist of TST 560 Keyboard, Mouse & Display, Computer Video Switch, Computer Video Switch Cables, Server Rack 9136 6', Coupling Kit, Side Panel Kit, Blank Panels, Cooling Fans, Power Distribution Units, Power Supply 4314r. Cost: $15,000

Cables & Ports: This will include UPS Serial Cable, UPS Server Card 3 port, 3com Gigabit Switch 12 Port, and Gigabit Ethernet Cable. Cost: $6500

Warranty Upgrades: This includes SAN Array 1000 Warranty 24x7 4hr response upgrade, DLT 5026 Tape Liberty Warranty 24x7 4hr response upgrade, DL 580 Server Warranty 24x7 4hr response upgrade, UPS 3000 Watt Warranty 24x7 4hr response upgrade, TST560 Next business day Warranty upgrade. Cost: $40,000

Cost Summary:

Item	Quantity	Unit Price	Total
Database Server	1	$50,000	$50,000
Vault Server	1	$220,000	$220,000
Web Server	1	$30,000	$30,000
Streaming Server	1	$25,000	$25,000
Rack Hardware	1	$15,000	$15,000
Cables & Ports	1	$6,500	$6,500
Warranty Upgrades	1	$40,000	$40,000
Total			**$386,500**

D. *Software*.

SOFTWARE

SmarTeam Hub Server: Runs on a Windows NT Server where the data's integrity can be assured and all changes to it are monitored, controlled, and recorded. Cost: $120,000 plus $24,000 annual maintenance

SmarTeam Client with SmartFlow: Client-based application that is loaded on each user workstation. Cost: $1,300 each plus $26,000 annual maintenance

SmartFlow Manager: Enables supervisors to track the location of documents in a workflow process at all times, provides statistical reporting, and provides a wide array of essential information to different users within the agency. Cost: $2,500 each plus $2,000 annual maintenance

SmarTeam Field Inspector Licenses: Dedicated licenses issued to all field inspectors to allow the users access to data and the ability to participate in workflow processes. Cost: $2,150 each plus $43,000 annual maintenance

MySmarTeam Server: Frees up client resources by running the various processes that the user can select. Will enable multiple database connections, providing a more efficient process to concurrent use throughout the workgroup. Cost: $25,000 plus $5,000 annual maintenance

MySmarTeam Clients: Each user that is involved in life-cycle functions will have a dedicated license of SmartFlow. Cost: $750 each plus $3,000 annual maintenance

Cost Summary:

Item	Quantity	Unit Price	Total
SmarTeam Hub Server	1	$120,000	$144,000
SmarTeam Client w/ SmartFlow	100	$1,300	$156,000
SmarFlow Manager	4	$2,500	$12,000
SmarTeam Field Inspector Licenses	100	$2,150	$258,000
MySmarTeam Server	1	$25,000	$30,000
MySmarTeam Clients	20	$750	$18,000
Total			**$618,000**

3. *Telecommunications.*

TELECOMMUNCIATIONS

T-1 Circuit. Each of the five sites will require a leased T-1 service to connect to an Internet service provider. Cost per circuit is $1500/mo. per circuit. Request is to fund the circuits for 12 months. So requested cost is $18,000 per circuit.

Cost Summary:

Item	Quantity	Unit Price	Total
T-1 Data Circuit	5	$18,000/12mos.	$90,000
Total			**$90,000**

E. Professional/Contracted Services.

PROFESSIONAL SERVICES

Installation, Implementation & Data Migration: The installation, implementation process and migration of data from existing systems into the new system. Cost: $600,000

SmarTeam Training & Support: This includes multimedia Video/CD/DVD of training course and one year of advanced support for main office and remote support for Inspectors and remote offices. Cost: $190,000

Scanning & Indexing: Involves scanning over 500,000 paper documents into the new system for data control, access, and ability to view. Cost: $90,000

Cost Summary:

Item	Quantity	Unit Price	Total
Installation, Implementation & Data Migration	1	$600,00	$600,000
SmarTeam Training & Support	1	$190,000	$190,000
Scanning & Indexing	1	$90,000	$90,000
Total			**$880,000**

V FUNDING REQUESTED

FUNDING REQUESTED

The agency will obtain federal funding for $1,884,000 for hardware, software, telecommunications, and professional services.

Funding Category	Total Cost	Other Sources	Funding Requested
Equipment	$386,500	0	$386,500
Software	$618,000	0	$618,000
Telecommunications			
Professional Services	$880,000	0	$880,000
Other	0	0	0
Total	**$1,884,000**	**0**	**$1,884,000**

VI COST/BENEFIT ANALYSIS – See Attachment I

The current SMART program utilized by this office suffers from periods of downtime and is inflexible in its use. The SMART program does not provide all the features and services required by this office to effectively and efficiently serve the public.

The estimate of time and costs, not including monies already expended, to enable SMART to provide some, but not all of the features required by this office, is estimated to be from two to three years and cost approximately $1,090,000.00.

Conversely, the FMIMS proposal will provide all features required by this office, including those not available from SMART, within the year and at a cost of $1,880,000.00. The overall costs are associated with the following:

1. purchase of hardware and software required to implement the program;
2. professional services which includes the migration of existing data in the SMART system to the FMIMS system, training and support for one year;
3. scanning and indexing of over 500,000 paper documents currently on file in the SFM office.

VII SIGNED STANDARD FORM

All standard proposal forms must be submitted along with a cover letter signed by the Secretary, Undersecretary (or their equivalents) and the Project Manager.

ATTACHMENTS

The FMIMS program is essential to the operations of this office. The current program used by this office is incomplete and has an anticipated completion date of 1.5 to 3.5 years. FMIMS can be fully operational within one year and provide full service and flexibility to this offcie. The current program utilized by this office continues to suffer from regular periods of "downtime".

FMIMS will allow the electronic submittal of plans, specification and related documents from the architectural, engineering and construction community and well as individual members of the general public who must do business with the State Fire Marshal's office. Plans submitted to this office will be tracked electronically through the entire process for plan review and inspections. At each stage of the process, authorized users, including the design community and the general public, will be able to determine the exact status of a submitted project to determine any delays or additional information required to complete the review and inspection process.

SFM staff architects who review submitted construction documents will have the ability to create an overlay of the electronic drawings indicating the changes requires or any specific notations or information of which the design professional, owner or field inspector should be aware. The construction documents approved by this office would then be available to the field inspector in electronic format to be viewed on the inspector's state-issued laptop computer during his/her inspection of the ongoing construction.

Currently, a SFM staff architect reviews a hard copy of the submitted construction documents and manually "marks up" the documents. If the documents are "released for construction", this office affixes a stamp to each sheet of the drawings indicating compliance with this office's regulations. This stamped set of documents must be retained on the job site by the owner or his/her representative and be made available to the SFM inspector during his/her inspection of the project. If the documents are not available at the time of the inspection, this office cannot perform the required inspections until the stamped set can be produced. Past experience has shown that the documents approved by this office are frequently "lost" or "misplaced" by the design professional, the contractor or the owner of the project. This results in lost inspection time as well as delays in granting final occupancy of the constructed building which in turn results in stifling economic development in the state.

An analysis of the current Smart system with the FMIMS proposal reveals the following comparison of SMART to FMIMS:

<u>Possible to Achieve a Close But Inferior Approximation</u>

SMART currently provide reports through Lotus Approach, but the built-in FMIMS reporting tool seems superior in integration, ease of use and user friendliness.

Though SMART sends other information down with the assigned inspection, the way FMIMS bundles into one package seems better. SMART can expand what is sent to include any information necessary, but the inspection interface is different from the office interface, unlike FMIMS single interface.

Through some tie-in with imaging, Smart may be able to store letters with the type of security that would stand up to legal scrutiny, but FMIMS seems able to provide this security regardless of the file type stored.

<u>Impossible to Provide with Currently Available Tools</u>

SMART has no way to match the viewer technology FMIMS provides to mark plans and store separate overlays of redlining. DPS Data would have to buy some other package and integrate it into SMART.

Though not imparted in the presentation at Data, one of the most impressive functions of FMIMS is the ability for users to update screens and have those changes directly update the back-end database. SMART is not able to match this in any way.

Currently, SMART does not provide a compression mechanism to reduce the size of data downloaded to the inspector in the field. As noted above, SMART may be able to closely match what is bundled for the inspector, but it would take longer for the inspector to get it than a compressed bundle from FMIMS.

Other SMART Disadvantages/FMIMS Advantages to Consider

Increased Storage Space Required on OS 390 Mainframe

Assuming the 1.5 Terabytes estimated as the storage space needed by FMIMS to keep three years worth of data is both accurate and applicable to what DPS Data would need to store the same data on Data's mainframe, DPS Data would need a significant increase in OS 390 storage. DATA currently has approximately 800 Gigabytes of supported storage which means 1.6 Terabytes of actual storage because Data must have back-up space that matches active space. Therefore, to provide 1.5 Terabytes of actual storage just for Fire Marshal, DPS Data would have to increase total storage three-fold to 4.8 Terabytes to maintain 1.6 Terabytes for other OS 390 storage and still provide 3 Terabytes (1.5 actual plus 1.5 back-up) to the Fire Marshal database.

Eventual Move of Entire SMART Application to Mainframe and Stored Procedures

The long-term plan is to migrate Intranet applications from individual servers connected to a mainframe database via the network to mainframe partitions connected to the database directly. With any architectural change, some number of issues will crop up that will need to be addressed. Though this may be in the future, it is something to weigh, since no migration is assumed for the FMIMS environment.

The Maintenance vs. New Development Struggle

One thing that we cannot help is the fact that FMIMS does not have to maintain the current systems while developing the new application. This allows more production in less time with equal man-power outlay. Often times, new issues and problems to be addressed arise as quickly as DPS Data progresses on existing work such that the overall hours to complete the project never go down and sometimes increase even as Data applies multiple programmers to the task. In fact, many problems arise from issues that DPA data has not completed because other problems arose.

Future System Maintenance and Expansion

FMIMS only requires minimal support and monitoring of the server hardware by Data. Programming changes, and assumable software and hardware upgrades, would all fall under a maintenance contract making the cost to us monetary rather man-power. Screen and database changes can supposedly be manipulated by the users themselves. In regards to more expansive changes, turn-around time on changes to application logic and any limits on the extent to which the application can be changed should certainly be investigated before committing to any maintenance contract.

ATTACHMENT I - FISCAL NOTE

	Expenditure Increase (Decrease)		
STATE COSTS	**2002-03**	**2003-04**	**2004-05**
Personal Services			
Operating Services		**43,000**	**43,000**
Professional Services	**880,000**		
Other Changes			
Equipment	**386,500 (Hardware)** **618,000 (Software)**		
Total State Exp.	**1,884,500**	**43,000**	**43,500**

	2002-03		2003-04		2004-05	
PERSONNEL (By Classification)	**No. Pos.**	**Av. Sal.**	**No. Pos.**	**Av. Sal.**	**No. Pos.**	**Av. Sal.**

MEANS OF FINANCING FOR ABOVE EXPENDITURES

FISCAL YEAR	STATE GEN. FUND	AGENCY SELF GENERATED	RESTRICTED/ OTHER (specify)	FEDERAL FUNDS	LOCAL FUNDS
2002-03			**800,000***		
2003-04			**800,000***		
2004-05			**800,000***		

*** These funds are acquisition funds received from a statutory dedicated funding source. The balance of the FMIMS system costs, if the grant proposal is accepted, will be paid yearly from a portion of the acquisition funds received by this office.**

Narrative Explanation of Expenditure Impact

Revenue Increase Decrease)

FISCAL YEAR	STATE GEN. FUND	AGENCY SELF GENERATED	RESTRICTED/ OTHER (specify)	FEDERAL FUNDS	LOCAL FUNDS
2002-03					
2003-04					
2004-05					

Narrative Explanation of Revenue Impact

At present, there is no revenue impact anticipated. The current fee structure for projects to be reviewed is anticipated to remain constant. The services to be provided by this office will remain the same. However, the quality and timeliness of the service provided will improve. It should be noted that this office has explored the possibility of a short term, modest increase in the fees assessed for the review of construction projects to finance the difference between the grant amount, if approved, and the balance of the costs for the FMIMS proposal. Discussions with various groups who would be affected has revealed no objections to a modest increase in fees based on the benefits to be derived by the user groups.